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PATENT  
Attorney Docket No.: 021288-002710US

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

By: Judie Cottam

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Hong Liu et al.

Application No.: not yet assigned

Filed: March 23, 2004

For: INHIBITORS OF CATHEPSIN S

Examiner: not yet assigned

Art Unit: not yet assigned

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

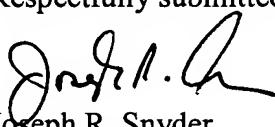
The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of Reference Nos. 21-37 are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Joseph R. Snyder  
Reg. No. 39,381

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60172197 v1

Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Application Number	not yet assigned
				Filing Date	March 23, 2004
				First Named Inventor	Liu, Hong
				Art Unit	not yet assigned
				Examiner Name	not yet assigned
Sheet	1	of	3	Attorney Docket Number	021288-002710US

<b>U.S. PATENT DOCUMENTS+</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-4,499,295	02-12-1985	Mueller et al.	
	2	US-5,374,623	12-20-1994	Zimmerman et al.	
	3	US-5,574,064	11-12-1996	Shibata et al.	
	4	US-5,691,368	11-25-1997	Peet et al.	
	5	US-5,723,469	03-03-1998	Shibata et al.	
	6	US-5,849,711	12-15-1998	Tung et al.	
	7	US-5,858,982	01-12-1999	Tung et al.	
	8	US-5,916,887	06-29-1999	Singh et al.	
	9	US-5,998,470	12-07-1999	Halbert et al.	
	10	US-6,004,933	12-21-1999	Spruce et al.	
	11	US-6,030,946	02-29-2000	Klaus et al.	
	12	US-6,057,362	05-02-2000	Yamashita	
	13	US-6,232,342 B1	05-15-2001	Carr et al.	
	14	US-6,274,336 B1	08-14-2001	Abdel-Meguid et al.	
	15	US-6,331,542 B1	12-18-2001	Carr et al.	
	16	US-6,353,017 B1	03-05-2002	Altmann et al.	
	17	US-6,369,077 B1	04-09-2002	Marquis et al.	
	18	US-6,395,897 B1	05-28-2002	Cywin et al.	
	19	US-6,420,364 B1	07-16-2002	Emmanuel et al.	
	20	US-6,455,502 B1	09-24-2002	Bryant et al.	

<b>FOREIGN PATENT DOCUMENTS</b>						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>4</sup> (if known)	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	21	WO	98/00171	A2	01-08-1998	Redcell Canada Inc.
	22	WO	00/51998	A1	09-08-2000	Boehringer Ingelheim Pharmaceuticals, Inc.
	23	WO	01/09110	A1	02-08-2001	Boehringer Ingelheim Pharmaceuticals, Inc.
	24	WO	01/19816	A1	03-22-2001	Boehringer Ingelheim Pharmaceuticals, Inc.
	25	WO	02/14314	A2	02-21-2002	Ortho McNeil Pharmaceutical, Inc.
	26	WO	02/14315	A2	03-32-2002	Ortho McNeil Pharmaceutical, Inc.
	27	WO	02/14317	A2	02-21-2002	Ortho McNeil Pharmaceutical, Inc.
	28	WO	02/051983	A2	07-04-2002	Celera
	29	WO	02/070519	A1	09-12-2002	PE Corporation
	30	WO	98/50534	A1	11-12-1998	Smithkline Beecham Corp.

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO				<b><i>Complete if Known</i></b>	
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				Filing Date	March 23, 2004
				First Named Inventor	Liu, Hong
				Art Unit	not yet assigned
				Examiner Name	not yet assigned
Sheet <b>2</b>	of <b>3</b>	Attorney Docket Number	<b>021288-002710US</b>		

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	31	WO 02/070517 A2	09-12-2002	Merck Frosst Canada & Co.		
	32	WO 02/069901 A2	09-12-2002	Merck Frosst Canada & Co. et al.		
	33	WO 00/48993 A1	08-24-2000	Novartis AG		
	34	WO 03/013518 A1	02-20-2003	Smithkline Beecham Corp.		
	35	WO 01/09110 A1	02-08-2001	Boehringer Ingelheim Pharmaceuticals, Inc.		
	36	WO 03/020287 A2	03-13-2003	Novartis AG		

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60172197 v1

Substitute for form 1449B/PTO				<b><i>Complete if Known</i></b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	not yet assigned
				Filing Date	March 23, 2004
				First Named Inventor	Liu, Hong
				Art Unit	not yet assigned
				Examiner Name	not yet assigned
Sheet	3	of	3	Attorney Docket Number	021288-002710US

<b>NON PATENT LITERATURE DOCUMENTS</b>				
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
	37	BANIA, J. et al.: "Human cathepsin S, but not cathepsin L, degrades efficiently MHC class II-associated invariant chain in nonprofessional APCs" PNAS; Vol. 100, No. 11; pp. 6664-6669 (May 27, 2003)		

Examiner Signature		Date Considered	
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<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup>Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.